Changing Attitudes toward Physically Disabled persons using a Videotape Sport Intervention

Allan Bett

The College at Brockport

Follow this and additional works at: https://digitalcommons.brockport.edu/pes_theses

Part of the Educational Methods Commons, Special Education and Teaching Commons, and the Sports Studies Commons

Repository Citation
https://digitalcommons.brockport.edu/pes_theses/48

This Thesis is brought to you for free and open access by the Kinesiology, Sport Studies and Physical Education at Digital Commons @Brockport. It has been accepted for inclusion in Kinesiology, Sport Studies, and Physical Education Master’s Theses by an authorized administrator of Digital Commons @Brockport. For more information, please contact kmyers@brockport.edu.
Changing Attitudes Toward Physically Disabled Persons Using a Videotape Sport Intervention

A Thesis
Presented to the Department of Physical Education and Sport
State University of New York
College at Brockport
Brockport, New York

In Partial Fulfillment of the Requirements for the Degree
Master of Science in Education
(Physical Education)

by
Allan Bett
August 1991
Title of Thesis: Changing Attitudes Toward Physically Disabled Persons Using a Videotape Sport Intervention

Author: Allan Bett

Date Submitted to the Department of Physical Education and Sport: August 1991

Accepted by the Department of Physical Education and Sport, State University of New York, College at Brockport, in partial fulfillment of the requirements for the degree Master of Science in Education (Physical Education).

Chairperson of the Department of Physical Education and Sport
Bett, Allan. Changing attitudes toward physically disabled persons using a videotape sport intervention. M.S. in Ed. 1991; pp. 97. (Dr. Francis X. Short)

The study investigated the effect of a videotape intervention on the attitudes toward physically disabled persons. The subjects were 86 elementary and secondary students from the same school district. Utilizing a stratified random sampling technique, subjects were assigned to control and experimental groups for each age range (11 to 13 and 16 to 19). All subjects completed the Attitude Toward Disabled Persons Scale, Form O, on three occasions with two-week intervals. The experimental group witnessed a 17-minute videotape of a wheelchair basketball game before the second administration. Results of the study indicated that the experimental group experienced a positive gain in attitude between the first and second administrations while the control group did not. This positive gain, however, decreased by the third administration but remained significantly higher than the first administration. The subject's age was not a significant factor in attitude change. The study concluded that a sport videotape is an effective way to change attitudes toward disabled persons but that the resultant change decreases over time.
Acknowledgements

The author would like to acknowledge the following for their contribution to this project:

Dr. Francis X. Short for undertaking the chairmanship of this project. Your expertise, camaraderie, and assistance with the statistical evaluation were invaluable.

Dr. Merrill J. Melnick for your quick responses, detailed comments, and endless resources.

The administration and staff of the Marcus Whitman Central School District for your cooperation and permission to complete this study.

Mike Sheehe for supplying the videotape and donation of time for editing the videotape.

Wayne Finger Lakes BOCES for its interlibrary loan service, computer loan service, and understanding throughout the entire study process.

Carl Walrath of the Wayne County Stop DWI for donating the use of the videotape editing equipment.
Michael Ratajczak of RatGraphics Inc. for furnishing the figure used in the project.

My wife, Dorene Marie, for her interest and expertise in the area of special education, which sparked an interest in disabled persons within me. Without you it is quite possible that this type of project would have never been attempted. Thank you for your proof reading, patience, and love.

My family and friends for lending an ear and support.
# Table of Contents

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>Statement of Problem</td>
<td>3</td>
</tr>
<tr>
<td>Need for the Study</td>
<td>3</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>4</td>
</tr>
<tr>
<td>Delimitations</td>
<td>5</td>
</tr>
<tr>
<td>Limitations</td>
<td>6</td>
</tr>
<tr>
<td>Definitions</td>
<td>7</td>
</tr>
<tr>
<td>II. REVIEW OF LITERATURE</td>
<td>9</td>
</tr>
<tr>
<td>Attitude and Attitude Change</td>
<td>9</td>
</tr>
<tr>
<td>Theory of Attitude Change</td>
<td>12</td>
</tr>
<tr>
<td>Measurement of Attitudes</td>
<td>17</td>
</tr>
<tr>
<td>Measurement of Attitude Toward Disabled People</td>
<td>19</td>
</tr>
<tr>
<td>Intervention Techniques</td>
<td>21</td>
</tr>
<tr>
<td>Videotape as an Intervention Technique</td>
<td>21</td>
</tr>
<tr>
<td>Age and Attitude Toward Disabled Persons</td>
<td>23</td>
</tr>
<tr>
<td>Media Interventions and Attitude Change Studies</td>
<td>24</td>
</tr>
<tr>
<td>Summary</td>
<td>29</td>
</tr>
</tbody>
</table>
III. METHODOLOGY ........................................... 33
   Selection of Subjects ................................. 33
   Instrument ............................................ 35
   Approval to do the Study ......................... 37
   Research Design ..................................... 38
   Videotape Description ............................. 42
   Treatment of the Data ............................... 43

IV. RESULTS AND DISCUSSION ......................... 44
   Results ............................................... 44
   Discussion .......................................... 53

V. SUMMARY, FINDINGS, CONCLUSIONS, AND
   RECOMMENDATIONS .................................... 62
   Summary .............................................. 62
   Findings ............................................. 64
   Conclusions ......................................... 65
   Recommendations ................................... 66

REFERENCES ............................................. 68
Appendix A: Attitude Toward Disabled Persons Scale, Form O ............... 84
Appendix B: Human Subject Research Review Form ......................... 87
Appendix C: Permission from Marcus Whitman Central School District .... 90
Appendix D: Letter and Permission Slip to Parents ......................... 93
Appendix E: Student Data Sheet ...... 96
LIST OF TABLES

Table                                                                 Page
1. Mean Ages and Standard Deviations for the Control and Experimental Groups. ....... 35
2. Mean ATDP Scores and Standard Deviation for the Three Trials. ...................... 45
3. Repeated Measures ANOVA of Differences among Groups, Ages, and Trials. .............. 49
4. ANOVA of Experimental and Control Group Differences Within Each Trial. .............. 51
5. ANOVA of Trial Differences for Experimental and Control Groups. .............. 52
LIST OF FIGURES

Table                                             Page

1. ATDP Mean Scores for the Control and
   Experimental Groups by Trials. ............... 47
CHAPTER I

Introduction

Since the 1970’s, opportunities for disabled people to become more active members of society have significantly increased. Despite several federal mandates (e.g., the Vocational Rehabilitation Act of 1973, Public Law (P.L.) 93-112, Section 504; the Education of the Handicapped Amendments Act of 1974, P.L. 93-380; the Education of All Handicapped Children Act of 1975, P.L. 94-142; and the Americans with Disabilities Act of 1990, P.L. 101-336) which now provide greater opportunities for disabled people, little has changed in terms of the public’s attitude toward disabled people. Research shows that persons with disabilities are stigmatized in American society (Lipsky, 1981). Disabled people are wrongfully perceived as being unfriendly, impolite, dishonest, unhappy, aggressive, unable to relate to others, in great need of help, angry, hostile and frustrated (Hannah, 1988).
Researchers have also shown that many people hold negative attitudes toward disabled people (Dally & Halpin, 1981; Evans, 1976; Richardson, 1970; Safran & Safran, 1986; Siller, 1976). These false images and misconceptions of disabled people prevent their full social acceptance in the larger society. Clearly, attitude change must take place before disabled people can gain greater social acceptance within the populace.

Disabled athletes constitute one segment of the disabled population. Here we see some signs of progress in terms of public acceptance. In the mass media, television commercials feature disabled athletes, there is news coverage of outstanding athletic feats performed by disabled athletes, and some television networks cover sporting events for the disabled. Since athletes are generally viewed as positive role models, it seems quite possible that disabled athletes could someday help change the public's attitude toward the disabled population.
Statement of the Problem

The purpose of this study was to examine the effect of a sport-related videotape intervention treatment on the attitudes of elementary and high school-aged subjects toward physically disabled persons. A second problem was to determine if age is a significant factor in attitude change.

Need for the Study

American society tends to stigmatize individuals who are different (Lipsky, 1981) and this is particularly evident with the disabled population. Disabled individuals are stereotyped, in part, because of society's unfamiliarity with their impairments. These stereotypes contribute to negative attitudes toward disabled people in general.

Stereotypes narrow the disabled person's life expectations as well as restrict their opportunities. Those disabled persons who come to believe in these stereotypes ensure their failure in society. By incorporating these stereotypes
into their own self-concepts, disabled people lower their personal expectations in terms of rehabilitation, education, and employment (Schroedel, 1979). If a more positive environment is to be created for disabled people, one which strengthens their self-confidence and self-worth, attitudes toward disabled people will need to change.

Federal mandates allow disabled people to gain access into public programs, but they do not guarantee acceptance of disabled people by the public at large. For example, the Education of All Handicapped Children Act helped place many disabled children into the educational mainstream. This was an important first step in contributing to attitude change, however, more needs to be done before disabled people gain full acceptance in society.

**Hypotheses**

1. Subjects shown a videotape of disabled athletes performing will demonstrate a
more positive attitude change toward physically disabled persons than a control group not shown such a videotape.

2. There will be no significant difference in attitude change between younger (11 & 12 years old) and older (17 & 18 years old) subjects shown a videotape of disabled athletes performing.

Delimitations

1. This study was restricted to sixth, and eleventh and twelfth graders enrolled in the Marcus Whitman Central School District, Rushville, New York.

2. The results of this study reflected the attitudes of sixth (11 & 12 years old), and eleventh and twelfth graders (17, 18 and 19 years old); they cannot be generalized to other age groups.

3. There are many different types of physical disabilities. This study focused on individuals
with paraplegia, amputations, or congenital deformities and who required a wheelchair for ambulation.

4. This study only addressed attitude change; it did not concern itself with changes in behavior.

Limitations

1. This study employed the Attitude Toward Disabled Persons Scale (1960). The Scale is now 31 years old and may be somewhat out-dated.

2. It is always difficult to know whether subjects respond truthfully to a standardized paper and pencil attitude scale. The subject’s response is related to a number of factors which can taint his or her opinions. These factors include ignorance, suspicion, fear, guilt, prejudice, or possibly knowledge of the study’s purpose.

3. An attitude scale can only be considered a rough approximation of a subject’s true attitude toward a particular topic.
4. It is possible that the experimental subjects were not exposed to the treatment protocol (viewing a videotape) for a sufficiently long enough period (17 minutes).

5. Although subjects were randomly assigned to experimental and control groups, the original subject pool was selected primarily on the basis of convenience.

Definitions

Attitude.

An attitude is "a learned and relatively enduring tendency or predisposition to evaluate a person, event or situation in a certain way and to act in accordance with that evaluation" (Vander Zanden, 1987, pp.173-174). Because attitude is a multi-dimensional concept containing at least three separate components, (cognitive, affective, and behavioral), a more extended definition will be presented and discussed in Chapter II.
Belief.

Deaux and Wrightsman (1984) define a belief as a "probabilistic judgment about whether a particular object has a particular characteristic" (p. 266). Beliefs are closely related to the cognitive component of an attitude and the amount of exposure a person has with a certain stimulus (Fishbein & Ajzen, 1972, 1975).

Opinion.

An opinion is a verbalized attitude (Zimbardo, 1977). Opinions are similar to beliefs but are non-evaluative. McGuire (1960, 1969) wrote that opinions are similar to beliefs when they are associated with a person's expectations toward a stimulus.

Values.

Values are ethical principles that imply a strong emotional commitment (Vander Zanden, 1987). Values refer to the worth ascribed to a group of attitudes (Shaw & Wright, 1967). When a group of attitudes are placed into a hierarchical order, a value system is created (Katz, 1960).
CHAPTER II

Review of Literature

This chapter was prepared and is discussed in order of the following subheadings: Attitude and Attitude Change, Theory of Attitude Change, Measurement of Attitudes, Measurement of Attitude Toward Disabled People, Intervention Techniques, Videotape as an Intervention Technique, Age and Attitude Toward Disabled Persons, and Media Interventions and Attitude Change Studies.

Attitude and Attitude Change

The study and measurement of attitudes has received a great deal of attention from psychologists and social psychologists. As a consequence, attitude has taken on a variety of meanings. The general consensus has it that attitude combines cognitive, affective; and behavioral components (Antonak & Livneh, 1988).
The cognitive component reflects a person's opinions, beliefs, thoughts, or perceptions toward a person, an object, or an event. It is generally communicated through a verbal statement of opinion or belief (Antonak & Livneh, 1988).

The affective component is emotionally based and reflects a person's feelings. This component is exhibited unidimensionally through feelings directed toward a person, an object, or an event. These feelings are expressed as good-bad, pro-con, liking-disliking, or positive-negative (Insko & Schopler, 1967; Katz 1960).

The behavioral component is the actual response made toward a person, an object, or an event. The response frequently incorporates past actions toward the attitudinal stimulus (Ostrom, 1969). The behaviors seek association with, avoid contact with, or, move against the attitudinal stimulus (Horney, 1945; Triandis, Adamopoulos, & Brinberg, 1984).

According to Antonak and Livneh (1988), attitude includes the following features: (a) attitudes are formed by interactions with people,
objects, and events; (b) attitudes are multi-component, complex structures; (c) attitudes are relatively stable; (d) attitudes are reflected when making social decisions toward people, objects, and events; (e) attitudes vary depending on the situation at hand; and (f) attitudes influence behavior toward people, objects, or events.

Much of the attitudinal research that was conducted in the 1800's represents an attempt to predict behavior. While it was shown that there was no causal relationship between attitudes and behavior, researchers did demonstrate that a link exists between attitudes and behavior (Zimbardo, 1977).

Social influence and persuasive communication are characteristics of human social interaction. In everyday life, human beings receive hundreds if not thousands of communications, all designed to alter their attitudes. This takes place in many ways, e.g., commercials we see or hear, sales pitches intended to interest us in a product, pressure to vote for a particular political
candidate, etc. Some of these attempts are successful at changing our attitudes, others are not.

Zimbardo (1977) wrote that individual behaviors cannot be predicted exactly but that people will change their behavior if a change in attitude takes place relative to the behavior in question. He also stated that changes in attitudes can also take place when targeted at specific groups of people. However, the individuals within a given group will undergo different amounts of attitude change depending upon their personal characteristics. Attitudes are useful in predicting whether groups of people will behave in certain ways (Zimbardo, 1977). By changing group attitudes toward a given person, place, or object, it is reasonable to expect a corresponding change in group behavior.

Theory of Attitude Change

There are several theories of attitude change. For example, Social-judgment theory,
Consistency theories, and Functional theories (Deaux & Wrightsman, 1984). The attitude change theory which was chosen for this study was the Yale Attitude Change Approach. Therefore, this section will focus on the Yale Attitude Change Approach. This theory was developed by a group of social psychologists at Yale University under the leadership of Carl Hovland during the late 1940's and 1950's. The theory is based on the notion that learning principles can be applied to analyze the critical factors which contribute to attitude change. The major learning principle involved is "persuasive communication". Persuasive communication is an attempt to influence another person's attitude by presenting arguments, facts, and then drawing conclusions (Zimbardo, 1977).

The Yale theory holds that attitudes are changed by altering a person's opinions or beliefs. Learning new information through persuasive communication can change beliefs. An attitude is expressed as either a favorable or an unfavorable reaction to an attitudinal stimulus.
The Yale approach identifies four variables believed to be important in determining the extent to which a person will be persuaded by a communication. The first variable is attention. The targeted audience must focus on the persuasive message given. If the audience does not focus on the message, no matter how well planned the communication is, no attitude change will take place. The second variable is comprehension. The message must be presented in a clear and understandable manner. If the audience attends to the given message but cannot understand what is said, the message is useless. The third variable is acceptance. The persuasive communication must be accepted by the audience. If the audience rejects the given communication there will be no attitude change. The fourth variable is retention. In order for the persuasive communication to be effective it must be remembered. This is accomplished by the use of catch phrases, slogans, or unusual examples to help the target audience remember the communication.
The Yale approach also postulates that four variables affect the acceptance of arguments and help to provide for the construction of the influencing presentation. These variables are described below.

**Source.** The person attempting to change the opinions of others must be credible. Petty and Cacioppo (1981), state that certain components increase a communicator's credibility, e.g., expertise, trustworthiness, attractiveness, similarity to the target audience, etc. There are other factors that also influence a communicator's credibility such as race, social status, sex, and speaking style. The above characteristics affect each individual differently.

**Communication.** This variable refers to the actual construction of the presentation. A persuasive message that is boring will have a minimal effect on attitude. The style of the communication and the arguments presented can affect attitude change. For example, Zimbardo (1977) and Deaux and Wrightsman (1984), have
identified the following factors which affect the persuasive communication: (1) the order of the arguments presented (should the strongest arguments be presented first or last?); (2) whether a one-sided or two-sided message is used; (3) whether conclusions are drawn for the audience or whether the audience is allowed to draw its own conclusions; (4) rational versus emotional approaches; and (5) the use of scare tactics. The communicator must order the persuasive information so that it will have the greatest impact on the targeted audience.

**Audience.** Regardless of the source, content, or the context of the communication, some people will respond positively to an attempt to change their attitude, while others will resist such efforts. However, in most cases individuals will interact with the communication and then decide whether or not to change their attitudes. Each individual in the targeted audience will respond differently to the persuasive communication. Factors such as intelligence, self-esteem, initial
attitude, involvement, and prior knowledge about the communication will all affect how much the individual is persuaded.

**Audience reaction.** The personalities of the individuals in the target audience interact with other factors to determine if an attitude change takes place. According to Deaux and Wrightsman (1984), attitude change and communication are active, dynamic processes involving an interdependent relationship between the source and the recipient.

**Measurement of Attitudes**

The study of attitudes has been an ongoing process since the 1850's. However, the term "attitude" did not appear in the psychological literature until first used by British psychologist Herbert Spencer in 1862 (Allport, 1935).

One of the first and most successful attempts to measure attitude was made by L.L. Thurstone (Thurstone, 1928, 1929, 1931; Thurstone & Chave, 1931).
Thurstone demonstrated that attitudes can be measured verbally and placed on a continuum ranging from "most favorable" to "most unfavorable". This method enabled him to convert a verbal response into a single score which he took as evidence of the subject's position on the affective dimension of attitude. Thurstone's process was subsequently referred to as "equal-appearing intervals".

In 1932, Rensis Likert improved upon Thurstone's method by constructing a measurement device that was less complex and simpler to use. Likert's method yielded a single score which was presumed to reflect the subject's degree of "favorableness" toward an attitudinal stimulus.

Unlike the previous methods, E.S. Bogardus (1925a, 1925b, 1933), attempted to measure attitude via its behavioral component. Bogardus was able to demonstrate different levels of social proximity toward an attitudinal stimulus by constructing a social distance scale.

Many other rating scales have been developed in the intervening years to measure attitudes.
The Guttman scale (Guttman, 1944; 1947), Q-methodology (Stephenson, 1953), the semantic differential (Osgood, Suci & Tannenbaum, 1957), and the adjective checklist (Gough, 1960), are examples of some of the more contemporary attitude scales presently in use.

Measurement of Attitude Toward Disabled People

The first attempt to measure attitudes toward disabled people was made by Mussen and Baker (1943). They measured the degree of favorableness of nondisabled people toward crippled people (the more acceptable term today is disabled), through a series of rating scales. Their method called for twenty-four, five-point rating scales, each designed to measure a particular personality trait (e.g., self-pity, friendliness, self-confidence) of a physically disabled person and an "ideal" person. The degree of favorableness was calculated by comparing the ratings for the disabled person and the "ideal" person (Mussen & Baker, 1943).
The measurement of attitudes toward specific disabled groups was well underway by the late 1950's. This movement led to the development of a variety of scales, e.g., the Attitude Toward Physically Handicapped (P-H) Scale (Lukoff & Whiteman, 1959); Roeher's (1959) scale to measure attitude toward physically disabled people; the Attitude to Deafness (AD) Scale (Cowan, Bobrove, Rockway, & Stevenson, 1967); the Opinions About Mental Illness (OMI) Scale (Cohen & Struening, 1959, 1960), Attitudes toward Mentally Retarded People (AMRP) Scale (Bartlett, Quay, & Wrightsman, 1960); Attitude Toward the Retarded Scale (ATR: Efron & Efron, 1967); the Disability Factor Scale (DFS: Siller, Ferguson, Vann, and Holland, 1967), and the Multidimensional Attitude Scale on Mental Retardation (MASMR: Harth, 1974).

In 1960, Yuker, Block, and Campbell published the Attitude Toward Disabled Persons (ATDP) Scale. This scale has become the most popular instrument to measure attitudes toward disabled people (Antonak & Livneh, 1988).
Intervention Techniques

Several researchers have studied ways of changing people's attitudes toward disabled people. A variety of intervention treatments and instructional approaches have been effectively used to change the attitudes of nondisabled people toward disabled people (Baker, Bussard, Johnson, & Rhodes, 1981). These approaches include: group discussions about disabilities, panel discussions conducted by disabled persons, role playing, simulation, live presentations given by disabled persons, media (i.e., audio-visual programs, television, video tapes, film), curricular approaches, and integrated school experiences. The reader is referred to Rizzi (1984) for a list of authors and intervention methods.

Videotape as an Intervention Technique

Many studies have investigated the use of film to change attitudes of nondisabled persons toward disabled persons. For the purpose of this
study, videotape and film are treated as synonymous interventions.

The use of film to change attitudes was first investigated in 1931 by L.L. Thurstone. He found that film had a lasting effect on the social attitudes of children. Charter (1933) also found film could be used to produce a desired attitudinal change. Many other researchers support the use of film to change attitudes (Simonson, 1980).

Simonson (1980) reported that researchers generally find that: (1) viewers enjoy film as a means of communication; (2) the more useful a learner perceives the information presented, the more favorable he or she will react to a film; and (3) subjects prefer filmed instruction over written instruction. For example, vocational students reacted more favorably to filmed instruction than to the same information presented in written form (Ganschow, Stilwell, & Jones, 1970). It appears that a film presentation can alter the attitudes of viewers by increasing their emotional involvement in the subject (Miller,
Simonson (1980) concluded that when persuasive films are used effectively, they can change viewers' attitudes toward a targeted group. Thus, it would appear that film is a viable intervention method for changing attitudes toward the disabled.

**Age and Attitude Toward Disabled Persons**

Researchers have used several different age groups to study attitude change toward disabled persons. The range in age has extended from third graders to senior citizens. Interestingly, few studies have actually compared different age groups with respect to attitude change toward disabled persons.

Some of the early studies suggested that there was a positive, linear relationship between age and attitudes toward disabled persons (Horowitz, Rees, & Horowitz, 1965; Siller & Chipman, 1967). Hollinger & Jones (1970), concluded that the older the subject, the more negative his or her attitude and the less likely
to achieve attitude change. On the other hand, Rapier, Adelson, Carey, & Croke, (1972), conducted a study across three different grade levels (3, 4, and 5) and found that older students saw handicapped people in a more realistic way, i.e., they need some help; they are curious, kind, and friendly; they can work fast.

Gozali (1971) discovered that attitudes toward disabled persons become more positive with maturity. However, he also pointed out that there seems to be a critical point (age 51 and above) where attitudes toward disabled persons begin to become more negative. It is obvious that the data are inconclusive with respect to the relationship between age and attitude toward disabled persons; more research is certainly needed.

Media Interventions and Attitude Change Studies

Social researchers have found that film can change a person's attitude toward disabled people, however, few have examined the interaction effects of age and film on attitude change. Most of the
studies of film and attitude change have only looked at undergraduate and graduate students; few have studied younger populations.

Ishkawa and Fujita (1978) employed the Attitude Toward Disabled Persons Scale to examine the effects of film on the attitude change of undergraduate college students. They hypothesized that physically disabled persons who have socially acceptable personality traits will be more favorably received than those who have undesirable traits. Through the use of two different films, they were able to portray two different physically disabled persons. One film featured a disabled person with desirable personality traits while the other portrayed a disabled person with undesirable personality traits. They discovered that the attitudes of nondisabled students toward a physically disabled person with desirable personality traits were more favorable than the attitudes displayed toward a physically disabled person with undesirable personality traits. Ishkawa and Fujita concluded that while the nondisabled must strive to understand the
physically disabled better, the disabled would do well to develop more desirable personality traits and socially acceptable behaviors.

Mulkey (1981) used 195 elementary and secondary students (grades six, nine, and twelve), to investigate the effects of two treatments (film and discussion) on attitude change toward disabled persons. The Attitude Toward Disabled Persons Scale was used to measure the subjects' attitudes. Both the film and discussion interventions produced significant, positive results. There were no significant differences between the film and discussion groups following a six-week time interval. The sixth and ninth grade students who participated in the discussion group showed greater positive attitude change than the film group. The latter had more positive attitude change scores than the twelfth graders. Retention losses occurred over the six week period for both groups. Interestingly, the higher the grade level for the students who viewed the film, the greater the retention of positive attitude. It appears that film can produce positive changes in attitude
and that retention is greatest for the higher grade levels.

Westervelt and McKinney (1980) used 98 fourth graders to examine the effects of a short film designed to point out similarities between disabled and nondisabled classmates. The Social Distance Questionnaire was used to measure their attitudes. The pretest questionnaire was administered while the subjects viewed a photograph of a wheelchair-bound child. Two days later the experimental group viewed a 13 minute film. This film showed disabled children in wheelchairs participating in physical education and classroom activities with nondisabled children. A posttest followed the viewing of the film. The subjects responded to two Social Distance Questionnaires and two Activity Preference Scales (one to assess self-interest and the other to assess their perception of the interests of the disabled child). These measures were repeated nine days later.

Their findings suggest that a program of relatively short duration can significantly change
general and specific attitudes toward disabled people. Being able to see similarities between nondisabled individuals and disabled individuals also facilitate attraction toward the latter, resulting in the elimination of misconceptions and unfavorable attitudes. Similar results were also reported by Asher (1973), Byrne (1961), Byrne and Griffitt (1966), and Rizzi (1984).

The students who viewed the film were more attracted to the wheelchair-bound child than the control subjects. The effects of the film were not apparent on the nine day posttest.

Westervelt and McKinney concluded that exposing children to a film before having a physically disabled child join a classroom may be useful. However, film alone does not appear to be the entire answer because it did not have a permanent effect.

All of the researchers cited above have emphasized the importance of film as an intervention technique for changing attitudes toward disabled persons. However, the relationship between age and attitude change
toward disabled persons has received insufficient attention. The literature has also shown that while film is an effective way to bring about attitude change toward disabled persons, the change is not permanent.

**Summary**

This chapter began with a multidimensional definition of attitude. Three components were identified as essential to such a definition. The cognitive component is communicated through a verbal statement of opinion or belief. This component establishes the fact that attitudes do exist and that they are based on opinions and beliefs. The affective component reflects a person's feelings. These feelings are expressed as good-bad, pro-con, liking-disliking, or positive-negative. This component allows us to measure attitudes toward disabled persons through the expression of feelings. The behavioral component is the actual response made toward a
person, an object, or an event. This study is not concerned with this component.

Social influence and persuasive communication were discussed in terms of changing attitudes. Evidence was presented to show that while behaviors cannot be precisely predicted, they are directly linked to attitude change. The Yale Attitude Change Approach theory argues that attitudes can change by altering a person's opinions or beliefs. Four variables were identified as important in terms of determining the extent to which a person will be persuaded by communication, i.e., attention, comprehension, acceptance, and retention. The Yale approach also identified four variables that affect the acceptance of arguments and assists in the organizing of the influencing message. These variables are: source, communication, audience, and audience reaction.

Several approaches to the measurement of attitudes were discussed with special emphasis on the measurement of attitudes toward disabled persons. One instrument in particular, the
Attitude Toward Disabled Persons Scale (Yuker, Block, & Campbell, 1960), is recognized as the most widely used instrument for the measurement of attitudes toward disabled persons.

References were made to several studies that have used videotape as an intervention technique to alter attitudes toward disabled persons. These studies have yielded the following conclusions: (a) physically disabled persons who have socially acceptable personality traits are more favorably received than those who have undesirable traits; (b) proper selection of a film is critically important; (c) an intervention of a relatively short duration can significantly change attitudes toward disabled persons; (d) being able to see similarities between nondisabled and disabled individuals facilitates attraction toward disabled persons; and (e) film is an effective way to bring about change in attitudes toward disabled persons although the change is generally not permanent.

It was also pointed out that very few researchers have examined the ways in which age interacts with attitudes toward the disabled.
people. The current study contrasted the attitudes of elementary and secondary school students toward disabled persons.
CHAPTER III

Methodology

This chapter describes the major procedural components addressed in the study, namely, (1) selection of subjects, (2) choice of instrument used to measure attitudes toward disabled people, (3) approval to do the study, (4) research design, (5) videotape intervention, and (6) statistical analysis of the data. Each of these procedural components is described below.

Selection of Subjects

The subjects for this study were 45 sixth graders also referred to as the "younger group" and 41 eleventh and twelfth graders also referred to as the "older group" from the Marcus Whitman Central School District, Rushville, New York. These students were selected for the study because they were convenient and readily available to the researcher. Random assignment techniques were
used to assign subjects to the experimental treatment (i.e., viewing a videotape of wheelchair basketball game) and the control (i.e., no viewing of the videotape) groups. The younger group ranged in age from 11 to 13 years; the older group ranged in age from 16 to 19 years. The means and standard deviations for these two age groups are presented in Table 1.
Table 1. MEAN AGES AND STANDARD DEVIATIONS FOR THE CONTROL AND EXPERIMENTAL GROUPS

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>MEAN</th>
<th>STANDARD DEVIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>YOUNGER</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONTROL</td>
<td>24</td>
<td>11.67</td>
<td>.64</td>
</tr>
<tr>
<td>EXPERIMENTAL</td>
<td>21</td>
<td>11.64</td>
<td>.66</td>
</tr>
<tr>
<td>OLDER</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONTROL</td>
<td>22</td>
<td>17.24</td>
<td>.94</td>
</tr>
<tr>
<td>EXPERIMENTAL</td>
<td>19</td>
<td>17.26</td>
<td>.93</td>
</tr>
</tbody>
</table>

**Instrument**

The Attitude Toward Disabled Persons (ATDP) Scale, Form O, (Yuker, Block, & Campbell, 1960) was chosen to examine the subjects' attitudes toward physically disabled people. The ATDP Scale, Form O, is a Likert-type instrument.
consisting of twenty items. The subject indicates his or her agreement or disagreement with each statement by assigning it a numerical score from +3 to -3. A score of +3 indicates "I Agree Very Much"; a score of +2 indicates "I Agree Pretty Much"; a score of +1 indicates "I Agree a Little"; a score of -1 indicates "I Disagree a Little"; a score of -2 indicates "I Disagree Pretty Much" and a score of -3 indicates "I Disagree Very Much".

According to Yuker and Block (1986), the test-retest reliability coefficients for the ATDP when repeated within five weeks, range from .70 to .95 with a median value of .83. For validity, Yuker and Block (1986) claim that there "should be evidence of relationships consistent with theories of prejudice" (pp. 19). That is persons with low ATDP scores are likely to show prejudice on measures of attitudes toward other groups; persons with high ATDP scores show acceptance of other groups. They concluded that the ATDP does in fact reflect prejudicial attitudes. This conclusion was strongly supported by median correlations with
several measures of prejudice and other negative attitudes (Yuker & Block, 1986). A copy of the ATDP Scale, Form O is included in appendix A.

Approval to do the Study

The State University of New York, College at Brockport requires all researchers who use human subjects to first gain approval from the Institutional Review Board. The researcher submitted to the Board the appropriate form and permission was subsequently granted to conduct the study. (See Appendix B for the Human Subject Research Review Form.)

The Marcus Whitman Central School District Board of Education was also contacted in order to gain permission to use its students in the study. Letters of permission were received from both the elementary and high school principals (see Appendix C). Because this study included minors (i.e., under 18-years-of-age), notices were also sent to the parents of all potential subjects (see Appendix D) informing them of the purpose of the
study and asking them for their permission to include their student in the study. Students who were 18-years-of-age or older signed their own permission slips. Two weeks after the permission slips were sent home, phone calls were made to the homes of those students who did not return their permission slips. Verbal permission was obtained for those subjects to participate in the study. Permission was obtained for all students identified for inclusion in the study.

Research Design

This field experiment employed an experimental group and a control group each categorized by two levels of age, in a repeated measures design. Each subject completed a Student Data Sheet (see Appendix E), for background information, and the Attitude Toward Disabled Persons Scale, Form O, at an initial meeting held on May 3, 1991.

This meeting took place in the students' regular classroom with his or her regular
classroom teacher present. The younger group consisted of students drawn from two different classes. The older group was drawn from five different classes, namely, three physical education classes, one participatory government class, and one study hall. The subjects from the three physical education classes were combined to form one group which made the administration of the scale to these three classes easier. Both the Student Data Sheet and the ATDP Scale were administered by one of the physical education teachers at a single sitting. The participatory government class and the study hall class each completed the Student Data Sheet and the ATDP Scale under the direction of their regular teachers. This first administration of the ATDP scale is hereafter referred to as the pretest.

The mean scores on the ATDP Scale were then calculated for both the younger and older groups. The subjects were then assigned to either the control or experimental groups based on their pretest scores. In effect, subjects were matched on their ATDP scores and one of each pair randomly
assigned to the experimental group, and the other to the control group. This random assignment of successive pairs created, in essence, a total of four groups, a younger experimental group, a younger control group, an older experimental group, and an older control group.

Following a two-week interval, the younger and older experimental groups each watched a 17-minute videotape of a wheelchair basketball game. The control group did not watch the videotape. This second interaction with the subjects and re-administration of the ATDP Scale is hereafter referred to as the posttest, and is described in greater detail below.

For administration purposes, the younger group was split into two groups, the control group was sent to one classroom, the experimental group to another. The researcher made a seven-minute introductory presentation to the experimental group which defined the term "physically disabled" and contrasted the differences between standard college basketball rules and the adaptations that are made for wheelchair basketball players.
Following this introduction, questions were entertained to further clarify rule changes and the nature of the videotape. Following the showing of the videotape, the researcher conducted the second administration of the ATDP scale to the experimental subjects. In another room, a classroom teacher supervised the second administration of the ATDP scale, to the control group.

The same procedure that was described above was followed for the subjects in the older experimental and control groups. A study hall teacher administered the ATDP scale, Form O, to the control group.

Following a two-week period, the ATDP scale was administered for a third time to all subjects. This third interaction used the same procedures as described for the pretest and is hereafter referred to as the follow-up.
Videotape Description

The videotape used in this study was supplied by the Rochester Wheels, a wheelchair basketball team that competes in the Lake Ontario Conference of the National Wheelchair Basketball Association. The Rochester Wheels' home court is located in Rochester, New York.

This videotape was filmed in color by a novice cameraman. The length of the film was edited by the researcher to 17 minutes. This was done to maximize the viewer's interest and attention. The film contained segments showing the tip off, fast break plays, passing plays, fouls, foul shots, pick plays, collisions, players falling out of their chairs, stalling tactics, and views of the scoreboard. The audio portion was not edited; it contained background sounds and isolated comments by the cameraman, (e.g., score, time remaining, etc.).
Treatment of the Data

The subjects’ answers on the ATDP Scale, Form 0 were scored according to the guidelines provided by Yuker and Block (1986). In order to establish changes in attitude toward physically disabled persons by treatment (i.e., experimental versus control) and age (i.e., younger versus older) a 2 x 2 x 3 factorial design with repeated measures on the third factor (i.e. trials) was used. The .05 level of significance was adopted for the repeated measures ANOVA and all post hoc tests.
CHAPTER IV

Results and Discussion

The data were analyzed to determine the effects of the videotape intervention on attitudes toward physically disabled people and to identify the interactional effects of the age variable. The obtained results were then compared to findings from similar studies in order to gain a better sense of the importance of these data.

Results

Mean ATDP scores and standard deviations were computed for both the control and the experimental groups. These data are presented in a pretest, posttest, and follow-up test format in Table 2. Each of the three administrations of the ATDP Scale is also referred to as a "trial".
### TABLE 2. MEAN ATDP SCORES AND STANDARD DEVIATION FOR THE THREE TRIALS.

<table>
<thead>
<tr>
<th></th>
<th>PRETEST</th>
<th>POSTTEST</th>
<th>FOLLOW-UP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>X</td>
<td>SD</td>
</tr>
<tr>
<td>CONTROL</td>
<td>46</td>
<td>73.44</td>
<td>18.67</td>
</tr>
<tr>
<td>Younger</td>
<td>24</td>
<td>72.29</td>
<td>19.76</td>
</tr>
<tr>
<td>Older</td>
<td>22</td>
<td>73.82</td>
<td>17.69</td>
</tr>
<tr>
<td>EXPERIMENTAL</td>
<td>40</td>
<td>75.80</td>
<td>16.99</td>
</tr>
<tr>
<td>Younger</td>
<td>21</td>
<td>74.76</td>
<td>17.72</td>
</tr>
<tr>
<td>Older</td>
<td>19</td>
<td>78.11</td>
<td>16.32</td>
</tr>
</tbody>
</table>

The data presented in Table 2 indicate that the mean scores of the control and experimental groups were similar following the pretest (73.44 versus 75.08). In addition, positive attitude changes did take place between the pretest and the posttest for both groups, but the experimental group’s gain was larger, specifically, the experimental group gained 8.66 points between pretest and posttest while the control group gained 2.96 points. Interestingly, the mean
scores declined between the posttest and the follow-up measurement for the younger control group, the older control group, and the older experimental group; only the younger experimental group had a higher mean score on the follow-up test than on the posttest (79.00 versus 77.71). The mean ATDP scores of all four groups are presented in Figure 1.
FIGURE 1. ATDP MEAN SCORES FOR THE CONTROL AND EXPERIMENTAL GROUPS BY TRIALS
The data presented in Table 2 and illustrated in Figure 1 show that attitude toward disabled persons, for both the younger and older control groups and the younger and older experimental groups, became more positive from the pretest to the posttest. Attitude improvement was greatest for the older experimental group (78.11 versus 89.74). The follow-up test showed a decline in attitude toward disabled persons for three of the four groups, only the younger experimental group, continued to show an improved attitude (77.71 versus 79.00).

In order to determine whether the attitude change scores observed in Table 2 and Figure 1 were statistically significant, a repeated measures ANOVA of differences among the groups, ages, and trials was performed. The results of this analysis are presented in Table 3.
TABLE 3. REPEATED MEASURES ANOVA OF DIFFERENCES AMONG GROUPS, AGES, AND TRIALS.

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>S.S.</th>
<th>df</th>
<th>M.S.</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Subjects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group</td>
<td>1520.58</td>
<td>1</td>
<td>1520.58</td>
<td>1.44</td>
</tr>
<tr>
<td>Age</td>
<td>1948.78</td>
<td>1</td>
<td>1948.78</td>
<td>1.84</td>
</tr>
<tr>
<td>Group x Age</td>
<td>339.37</td>
<td>1</td>
<td>339.37</td>
<td>0.32</td>
</tr>
<tr>
<td>Error</td>
<td>86750.68</td>
<td>82</td>
<td>1057.94</td>
<td></td>
</tr>
<tr>
<td>Within Subjects</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trials</td>
<td>1533.37</td>
<td>2</td>
<td>766.69</td>
<td>11.48*</td>
</tr>
<tr>
<td>Group x Trials</td>
<td>406.30</td>
<td>2</td>
<td>203.15</td>
<td>3.04*</td>
</tr>
<tr>
<td>Age x Trials</td>
<td>154.54</td>
<td>2</td>
<td>77.27</td>
<td>1.16</td>
</tr>
<tr>
<td>Group x Age x Trials</td>
<td>82.10</td>
<td>2</td>
<td>41.05</td>
<td>0.61</td>
</tr>
<tr>
<td>Error</td>
<td>10950.20</td>
<td>164</td>
<td>66.77</td>
<td></td>
</tr>
</tbody>
</table>

*P ≤ .05

The within subjects analysis presented in Table 3 shows that the main effect for "trials" \([F(2,164) = 11.48]\) and the "group by trials" \([F(2,164)=3.04]\) interaction were statistically
significant at the .05 level. The significant trials effect F-ratio indicates that change occurred in the ATDP scores across the three trials, but the group by trials interaction F-ratio suggests that the nature of the change was not the same for both groups (experimental versus control). Neither of the between subjects factors (group and age), nor their interaction, were significant.

To determine the nature of the group by trials interaction, two post hoc tests were done. In the first, an analysis was performed to determine if group differences (experimental versus control) existed for each of the three trials (pretest, posttest, follow-up). The results of this analysis are presented in Table 4.
The data in Table 4 indicate that the only significant between group difference was on the posttest \( F(1,82)=3.87 \). An examination of the means in Table 2 confirms that this significant difference favored the experimental group (84.46 versus 76.40).

The second post hoc test was done to determine if "trials" was a significant factor for both groups of subjects, that is, did scores
across the trials change significantly for both the experimental and control groups. The results of this analysis are presented in Table 5.

**TABLE 5. ANOVA OF TRIAL DIFFERENCES FOR EXPERIMENTAL AND CONTROL GROUPS.**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>S.S.</th>
<th>df</th>
<th>M.S.</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trials for Control</td>
<td>270.18</td>
<td>2</td>
<td>135.09</td>
<td>2.02</td>
</tr>
<tr>
<td>Trials for Experimental</td>
<td>1536.89</td>
<td>2</td>
<td>768.45</td>
<td>11.51*</td>
</tr>
<tr>
<td>Error</td>
<td>10950.20</td>
<td>164</td>
<td>66.77</td>
<td></td>
</tr>
</tbody>
</table>

*p ≤ .05

The data presented in Table 5 indicate that there were no statistically significant differences among the three trials for the control group. However, the differences for the experimental group were significant \(F(2,164)=11.51\). Consequently, a series of dependent t-tests were then used to determine which pairs of means differed significantly for
the experimental group. For each comparison
[pretest-posttest: $t(40)=-5.15$;
posttest-follow-up: $t(40)=-2.22$;
pretest-follow-up: $t(40)=-2.02$] the t value was significant at the .05 level. This finding suggests that there was a significant improvement in attitude between the pretest and posttest. This was followed by a significant decline in attitude between the posttest and follow-up, but the follow-up score was still significantly higher than the pretest score.

Discussion

The following discussion will focus on two points of interest, namely, (1) the effect of the videotape on changing attitudes toward physically disabled people and (2) the effect of age on changing attitudes toward disabled people.
The effect of videotape on changing attitudes toward physically disabled people.

The videotape interaction utilized in the present study was shown to have a positive effect on changing attitudes toward disabled people. This finding supports previous work by Ishkawa and Fujita (1978), Mulkey (1981), Rizzi (1984), Simonson (1980), and Westervelt and McKinney (1980).

The study completed by Ishkawa and Fujita (1978) used undergraduate college students and the ATDP scale to examine the effects of film on attitude change toward disabled persons. Ishkawa and Fujita, attributed the significant attitude change effects to the film's portrayal of desirable personality traits and socially acceptable behaviors for disabled individuals. The wheelchair basketball game videotape also displayed desirable personality traits and socially acceptable behavior to the viewer. Thus, it can be argued that it was the videotape intervention which produced the positive attitude
changes toward the disabled individuals for these elementary and senior high school students.

The elementary and secondary school subjects (grades six, nine, and twelve) used by Mulkey (1981), experienced positive, significant changes in attitudes toward disabled persons when they were exposed to film and discussion intervention techniques. However, there was no significant difference between the two interventions. The current study used only one intervention technique, film, with subjects of similar age (grades six, eleven, and twelve). The same positive changes were also noted.

Rizzi (1984), and Westervelt and McKinney (1980) both used 13-minute films to change attitudes toward disabled people. Rizzi (1984) used middle school students (grades six, seven, and eight) and the ATDP scale to measure the subjects' attitude toward disabled persons. Westervelt and McKinney (1980) used fourth graders and the Social Distance Questionnaire to measure attitudes toward disabled people. While the film intervention used by Rizzi (1984), and Westervelt
and McKinney (1980), was relatively short in duration, significant positive attitude changes toward disabled persons were obtained. The videotape intervention, employed in this study, also relatively short duration (17-minutes) also produced positive and significant attitude changes toward disabled persons.

Recall that the experimental group (younger and older subjects) scored higher than the control group (younger and older subjects) on both the posttest and follow-up test. However, the significant difference noted on the posttest decreased on the follow-up test. This decrease in positive attitude toward the disabled individuals was also noted by Westervelt and McKinney (1980) following a nine-day interval. Likewise the attitudes of the experimental group in the present study also turned less positive following the non-interactional interval (two weeks). Thus it appears that a videotape intervention can change attitudes toward disabled people, but only temporarily. It appears that frequent
reinforcements are needed in order to help ensure the stability of the attitude change.

In summary, it would appear that a videotape of relative short duration that portrays disabled athletes can have a positive effect on the generic attitudes of people toward disabled individuals, but the effect is short-lived. These results suggest that if a videotape is shown with the purpose of improving the attitudes of a select group prior to a particular event (i.e., orientation for new workers, or to desensitize a classroom who will be getting a new disabled student, etc.) it is critical to show the videotape as close to the event as possible.

Age differences. Results of this investigation revealed that age is not a significant factor with respect to attitude change via a videotape intervention. This finding contradicts the work of Horowitz et al. (1965), and Gozall (1971) who found a positive relationship between age and attitude toward disabled people (as age increased, positive
attitude toward disabled individuals increased). It also differs from Hollinger & Jones's (1970) results who found that the older the subject, the more negative his or her attitude.

The Horowitz et.al. (1965) study used five groups of subjects. The groups were sixth grade students, high school students, college students, graduate students, and members of a PTA group. The groups represented different ages, formal educations, and different levels of maturity and sophistication. This study differs from the present study in terms of the range of ages. Horowitz et.al. (1965), subjects ranged from sixth graders to PTA members, while the present study included sixth graders and eleventh and twelfth graders.

The Horowitz et.al. (1965) results showed that with increasing maturity and sophistication, subjects attitudes toward disabled persons became more positive. However, no significant differences were noted between the sixth grade students and high school students. This same age phenomenon was apparent in the present study.
While the older experimental group scored higher on the ATDP Scale than the younger experimental group, the difference was not statistically significant.

Gozali (1971) also found that attitude toward disabled persons becomes more positive with maturity, but, added that there is a critical point at age 51 where attitudes toward disabled persons begin to become more negative. Gozali (1971) used four age groups to measure this effect, namely: 12 to 19, 20 to 35, 36 to 50, and 51 and over. In the present study, the ages of the younger group ranged from 11 to 13, and the older group from 16 to 19. Both of these age groups fall within Gonzali's youngest group (12 to 19) so no direct contrast between studies can be made.

Hollinger and Jones (1970) used six interviewers to collect data from 114 subjects. The subjects ranged in age from 18 to 87. Subjects responded to questions dealing with (1) attitudes toward persons labeled "slow learners", (2) knowledge of "slow learners", and (3)
acceptance of persons labeled "slow learners" or "mentally retarded". The results showed that the older the subject, the more negative his or her attitude toward disabled individuals. While Hollinger and Jones (1970) measured the attitude of their subjects toward mentally disabled individuals, the present study measured attitude toward physically disabled individuals. This factor alone could have been responsible for the differences in results.

Overall, it appears that attitudes toward physically disabled individuals become more positive with increasing maturity. However, the range in age used in the present study was not great enough to provide additional support for this general finding. Also, different types of disabilities may produce different types of attitudes toward disabled people. One group of disabled persons may not be perceived in the same manner as another group of disabled people. It appears that the role of age in the development of attitudes toward disabled people is not completely
understood at this time and that more research on the subject is warranted.
CHAPTER V

Summary, Findings, Conclusions, and Recommendations

Summary

The disabled population in American society is stigmatized and misunderstood which prevents its full acceptance in the general populace (Dally & Halpin, 1981; Evans, 1976; Lipsky, 1981; Richardson, 1970; Safran & Safran, 1986; Siller, 1976). The public’s attitude toward disabled people must change before the latter can gain the full and unconditional acceptance they seek and deserve.

The purpose of this study was to examine the effect of a sport-related videotape featuring physically disabled athletes on the attitudes of elementary and high school-aged subjects toward disabled persons. The subject’s age was also investigated to determine whether age is a
significant factor in attitude change. A convenience sample of 86 students (grades 6, 11, and 12) from the Marcus Whitman Central School District, Rushville, New York, served as the subjects in this study. The sixth grade students served as the "younger" group and the eleventh and twelfth graders served as the "older" group. The students all received parental permission to take part in the study.

All subjects were initially administered the ATDP Scale to determine their base line attitudes toward disabled persons (pretest). Subjects in both groups were then randomly assigned to control groups and experimental groups based on a matching of their ATDP scores.

After two weeks, the younger and older experimental subjects watched a 17-minute videotape of a wheelchair basketball game. Immediately following the presentation, the subjects in the two experimental groups were re-administered the ATDP Scale (posttest). The control group subjects were also re-administered the ATDP scale. A third administration of the
ATDP Scale took place for both groups two weeks later (follow-up test).

The results were analyzed using a repeated measures analysis of variance for groups, ages, and trials, additionally, appropriate post hoc tests were done where indicated.

**Findings**

Based on an analysis of these data, the following findings were noted:

1. The videotape intervention positively influenced the viewer's global attitude toward physically disabled persons. As a result, hypothesis $H_1$ was accepted.

2. Even though the videotape intervention was responsible for a significant positive change in attitude toward physically disabled persons, the effect decreased over time.

3. There was no significant difference between the control and experimental groups on the follow-up test, although the follow-up scores of
the experimental group were significantly higher than their pretest scores.

4. The subject's age did not interact with the group variable (control or experimental), or the trials variable (pretest, posttest, follow-up test). Attitudes toward physically disabled persons did not appear to be related to the subject's age. As a result, the null hypothesis, \( H_2 \), was not rejected.

Conclusions

Within the limitations of the study, the following conclusions were reached:

1. Videotape is an effective way to positively change attitudes toward physically disabled persons.

2. The positive effects of videotape are relatively short in duration.

3. Age is unrelated to attitudes toward physically disabled persons.
Recommendations

Additional research in the area of attitude change toward physically disabled persons is needed. The following suggestions are offered for future researchers:

1. The effectiveness of a videotape intervention can probably be made more permanent by manipulating other variables. For example, (1) include several intervention sessions over an extended period of time (e.g. three videotape interventions spaced two weeks apart); (2) include several different interventions within one interaction (e.g. discussions about and/or with physically disabled persons, videotape intervention, and simulation of the disability); and (3) use several different interventions over an extended period of time (e.g. two-week rest intervals between, for example, discussions about and/or with disabled persons, videotape intervention, and simulation of disability).

2. The age variable can be investigated more fully by using a greater range of age groups.
(e.g. kindergarten children, high school seniors, college seniors, senior adults).
REFERENCES
REFERENCES


APPENDIX
Appendix A

Attitude Toward Disabled Persons Scale, Form O
INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRE

Please complete the following Student Data Sheet and the Attitude Toward Disabled Persons Scale. Your teacher will go over the instructions with you so that you will know how to record your answers. Your answers will be combined with other participating students to provide the information needed for this research study.

The statements about disabled people found on the Attitude Toward Disabled Persons Scale represent feelings which some people agree with and some they don’t agree with. You will probably agree with some and disagree with others. We are interested in finding out how you feel about each statement and how much you agree or disagree with it. Please read each statement carefully.

Do not put your name on the form. Your answers will be treated anonymously. This is not a test. There are no RIGHT or WRONG answers. We are only interested in your opinions and how you feel about disabled people. Your first impressions or feelings are often the best ones to record. Please follow the instructions and answer every item.

Teachers please proceed as follows:

1. Pass out the questionnaire packet to the corresponding students according to their student number.

2. Have all students complete the general information page.

3. Go over the above instructions and the instructions provided for the Attitude Toward Disabled Persons Scale. Let the students begin.

4. Please check to make sure that all student are placing the number of their answer in the space provided in the left margin of each item according to the instructions.

5. Allow time for all student to complete all items.

6. Collect all completed forms and return to Allan Bett.

Thank you and your students once again for your cooperation and participation in this study.
Mark each statement in the left margin according to how much you agree or disagree with it. Please mark every one. Write +1, +2, -1, -2, -3: depending on how you feel in each case.

+3: I AGREE VERY MUCH -1: I DISAGREE A LITTLE
+2: I AGREE PRETTY MUCH -2: I DISAGREE PRETTY MUCH
+1: I AGREE A LITTLE -3: I DISAGREE VERY MUCH

1. Parents of disabled children should be less strict than other parents.
2. Physically disabled persons are just as intelligent as nondisabled ones.
3. Disabled people are usually easier to get along with than other people.
4. Most disabled people feel sorry for themselves.
5. Disabled people are the same as anyone else.
6. There should not be special schools for disabled children.
7. It would be best for disabled persons to live and work in special communities.
8. It is up to the government to take care of disabled persons.
9. Most disabled people worry a great deal.
10. Disabled people should not be expected to meet the same standards as nondisabled people.
11. Disabled people are as happy as nondisabled ones.
12. Severely disabled people are no harder to get along with than those with minor disabilities.
13. It is almost impossible for a disabled person to lead a normal life.
14. You should not expect too much from disabled people.
15. Disabled people tend to keep to themselves much of the time.
16. Disabled people are more easily upset than nondisabled people.
17. Disabled persons cannot have a normal social life.
18. Most disabled people feel that they are not as good as other people.
19. You have to be careful of what you say when you are with disabled people.
20. Disabled people are often grouchy.
Appendix B

Human Subject Research Review Form
Institutional Review Board
Human Subjects Research Review Form

Robert J. McLean
Associate Vice President for Academic Affairs

Investigator(s) name(s) Allan Bett
Department & Telephone Physical Education & Sport

Human Subject Research Review

PROJECT TITLE Changing Attitudes Toward Disabled Persons Using a Videotape Sport Interaction

College Status (For each investigator):
Faculty/Staff
Undergraduate Student
Graduate Student

If the principal investigator is a student, list name, department and local telephone of faculty supervisor. Please note that THE FACULTY SUPERVISOR MUST INDICATE KNOWLEDGE AND APPROVAL OF THIS PROPOSAL BY SIGNING THIS FORM.

Faculty Supervisor Name Francis X. Short
Department & Telephone Physical Education & Sport 395-3336

Check appropriate category of research project:
 Category I (Expedited Review)
✓ Category II (Expedited Review)
 Category III (Full Review)

The Principal Investigator must sign this form. (If the P.I. is a student, his/her faculty supervisor must also sign this form.)

I certify that a) the information provided for this project is accurate, b) no other procedures will be used in this project, and c) any modifications in this project will be submitted for approval prior to use.

Signature of Investigator Allan Bett 3/25/91

Signed

Signature of Faculty Supervisor

I recommend: Full IRB review or expedited review

Signature of Department Head or Designee

Date

Date

Date
To: Allan Bett  
Investigator  

From: Dr. Robert J. McLean  
Chair, Institutional Review Board  

Re: Project IRB. 91-4  

Your proposal entitled Changing Attitudes Toward Disabled Persons  
Using A Videotape Sport Interaction  

has been reviewed by the IRB. Accordingly, you may proceed with the work as proposed and approved.

Please contact the Chair, IRB immediately if:

- the project changes substantially,
- a subject is injured,
- the level of risk increases.

Also, the following reports are required as noted on the attached.

After the project is completed please send a final report to Dr. Robert McLean, Office of Academic Affairs, SUNY College at Brockport, Brockport, N.Y. 14420

Good luck!
Appendix C

Permission from Marcus Whitman

Central School District
March 22, 1991

To Whom It May Concern:

Mr. Allan Bett has received permission to conduct research with our sixth grade classes for his project, "Changing Attitudes Toward Disabled Persons Using a Videotape Sports Interaction".

Sincerely,

Eric Young
Building Principal
March 22, 1991

To Whom It May Concern:

Please accept this letter as permission from our school for Allan Bett to administer a survey to our Juniors and Seniors. I understand this survey is to reflect changing attitudes toward disabled persons.

Sincerely,

Ron Davis
Principal

RD:jn
Appendix D

Letter and Permission Slip Sent to Parents
Dear Parent:

I am a physical education teacher at the Wayne-Finger Lakes B.O.C.E.S. center in Rushville and Gorham. Currently, I am a masters candidate at the State University of New York at Brockport, involved in a study of elementary and high school students' attitude toward physically disabled persons. In order to complete this study, I am requesting that you grant your permission for your child to participate in this study.

The students with parental permission will be asked to anonymously complete a short, 20 item questionnaire designed to measure attitudes toward disabled persons. This is not a test. There are no right or wrong answers. I am only interested in your child's opinion.

The questionnaire will be distributed during a regular school day and should take approximately 20 minutes to complete. Four weeks after this, half of the students who participated will view a 15 minute videotape. The videotape was provided by the Rochester Wheels (a wheelchair basketball team in the Rochester area) and contains live footage of a wheelchair basketball contest. Both groups of students, those who viewed the videotape and those who did not view the videotape, will retake the questionnaire.

The results of this study will be shared with all those interested. I am hopeful that this project will contribute to the betterment and growth of all students and the disabled population in general.

This study has been approved by the Marcus Whitman Board of Education and the State University of New York at Brockport. I am grateful for your cooperation.

Sincerely,

Allan Bett
PLEASE SIGN AND RETURN TO YOUR CHILD’S CLASSROOM TEACHER AT YOUR EARLIEST CONVENIENCE. The study will begin on May 1, 1991.

Thank you,

Allan Bett

I grant permission for my child ________________
to participate in the study of elementary and high school students' attitude toward physically disabled persons before and after the videotape interaction as described in the attached letter.

Parent Signature:________________________

Date:________________________
Appendix E

Student Data Sheet
INSTRUCTIONS

Please answer the following questions to the best of your ability.

1. What is your age? ______

2. What grade are you in? ______

3. Please circle your sex: MALE FEMALE

4. Are you physically disabled? ______

5. How well do you know a physically disabled person? (please circle the corresponding letter)
   a) very well
   b) fairly well
   c) not at all

6. Is there a physically disabled person in your school? ______

7. Have you ever seen a wheelchair basketball game? ______